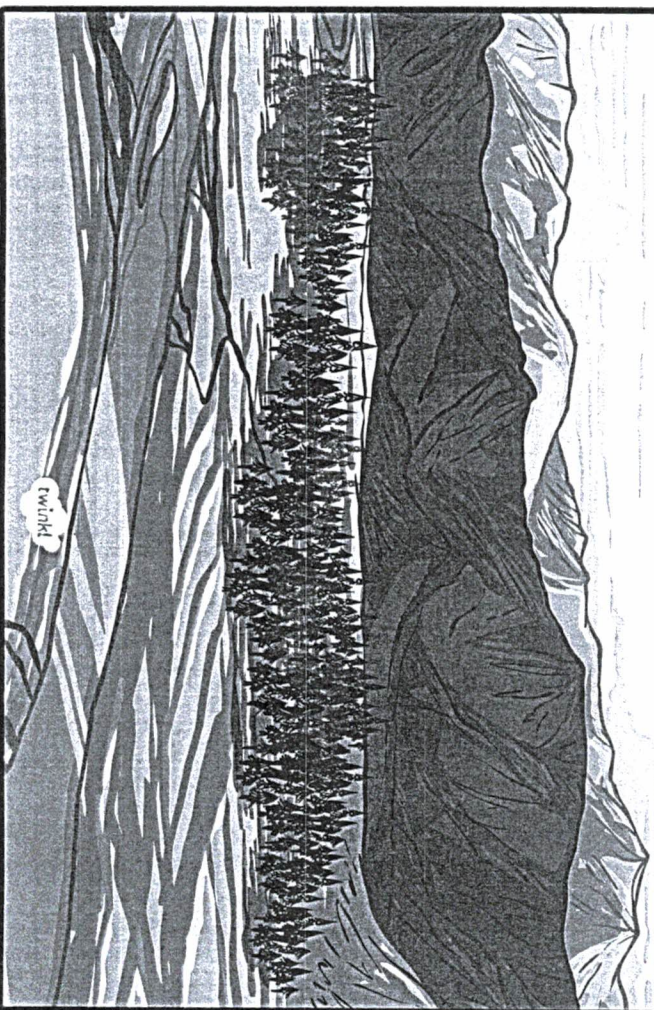


Life in the Indus Valley

The Indus Valley civilisation covered a massive area, four times as large as the UK. It centred on the river Indus that runs through modern day northeast Afghanistan, Pakistan and Northwest India. At the time there was a second major river but this dried up around 2000 BC and it now only flows during the monsoon rain season. The river is called the Ghaggar upstream of the Oru barrage and the Hakra downstream.

The Indus Valley civilisation started around 3200 BC. When farmers moved into the area they established small farming settlements where they kept cows and sheep. In time these grew into major cities like Mohenjo-Daro and a sophisticated, advanced civilisation began to flourish. Evidence shows that the people from the Indus Valley civilisation made objects from clay; had their own Indus writing script and used tools like ploughs to farm the land. They were also skilled traders and they had commercial links with other advanced civilisations like ancient Sumer. The civilisation thrived until around 1900 BC, after which it began to slowly decline. By 1300 BC all the major cities had been abandoned and the civilisation ceased to exist. It is thought that the drying up of the Ghaggar-Hakra river could have led to the desertion of the area.

The lost cities of The Indus Valley civilisation lay undiscovered until 1826 when a British soldier called Charles Masson noted mounds of bricks that he thought looked like castles. They were actually buildings from Mohenjo-Daro. Thirty years later, in 1856, workers building The Great Indian Railway found and used old bricks that turned out to be from buildings in Harappa. Subsequent exploration of the area revealed exciting evidence of these lost cities.



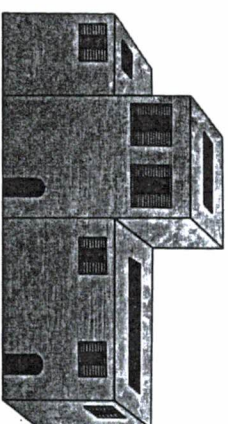
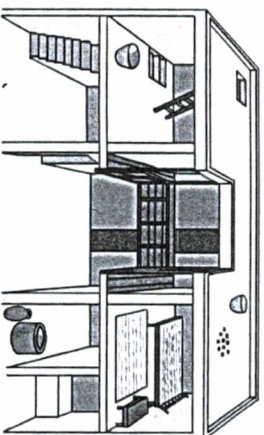
Cities

The Indus Valley civilisation was the biggest of the ancient civilisations and its main cities were huge and complex with many thousands of inhabitants. The cities were built near rivers, which provided water for cooking, washing and drinking. The water, which flooded the riverbanks each year, transferred nutrients into the earth that kept it rich and fertile for growing crops. The river also provided a mode of transport for traders to carry their goods to other cities. Mohenjo-Daro and Harappa were the biggest cities of the Indus Valley civilisation and it is thought that up to 80 000 people could have lived there. Other Indus Valley cities included Kalibangan, Lothal and Banawali. However, not everyone lived in cities; lots of farmers, fishermen and traders lived outside the cities in small villages. Buildings in the cities were made from mud bricks that were dried in the sun. There were lots of buildings built for different purposes; these included granaries, dockyards, public baths, warehouses and, of course, houses for people to live in. Unlike other ancient civilisations, there has been no evidence of temples or palaces found. This suggests that the Indus Valley probably did not have priests or kings. Water was very important in the Indus Valley civilisation and the cities had complex drainage systems and wells to manage the water flow in and out of the city and to separate clean and dirty water. Some cities also had a citadel that was an area on a mound of land that was higher than the rest of the city. It is thought that the most important buildings were located there and that they were probably the place in which the rulers of the city lived.

Homes

There were big and small houses in the Indus Valley cities. Some had one floor and others (probably those belonging to richer people) had two or even three. The walls of the houses were very thick as this kept them nice and cool inside. There were no windows in the walls facing the main street so that people inside were not disturbed by the noise outside. Richer people's houses had many rooms which were sometimes arranged around a central courtyard, but some poorer people only had one or two rooms in which to live. Houses had flat roofs and this created an outdoor space where people could keep cool, socialise with their friends and families and store some of their goods. The rooms inside the houses were used for different purposes. There were designated places to eat, sleep and wash. The people from the Indus Valley cooked on fire made by burning wood, charcoal or even animal dung! They also had ovens in which they baked bread. Hygiene and cleanliness were very important and houses had bathrooms with toilets and showers. Toilet seats were made from bricks and waste from the toilets was channelled out into the street drains through clay pipes. Showers were really just a brick platform on which people would stand and pour water over themselves from jugs. Again, the dirty water would flow out of the house through the pipes and enter the city drain. Clean water was obtained from wells that were accessible out in the streets, although some wealthier households actually had their own private wells.

Life in the Indus Valley civilisation was very advanced for its time with living conditions comparable to those in ancient Sumer and better than those in ancient Egypt. Historians and archaeologists are still working hard to discover more about this fascinating lost civilisation.



Life in the Indus Valley

Read the text carefully and then answer the following questions in as much detail as you can.

1. Where was the Indus Valley civilisation?
2. When did the Indus Valley civilisation begin?
3. How do we know that the Indus Valley civilisation was advanced for its time?
4. When and why did the Indus Valley civilisation begin to decline?
5. How were the lost cities of Mohenjo-Daro and Harappa first discovered?
6. Explain why the cities were built near rivers.
7. What types of buildings were in the cities? Describe their purposes.
8. Why do you think some people chose not to live in the cities?
9. Evidence shows that the Indus Valley civilisation probably did not have any priests or kings. Do you agree? What do you think the rulers of the cities were and what was their role?
10. What features did the houses have that reflected the physical environment of the city? Draw a picture of what you think a typical house may have looked like and label the features.
11. Would you have liked to have lived in the Indus Valley civilisation? Explain your answer in detail.
12. Exploration and excavation of the Indus Valley civilisation is still ongoing. If you could ask an archaeologist or historian any question about the Indus Valley civilisation, what would it be? Why?

Challenge:

Can you design and draw your own Indus Valley civilisation city?

What would you call it?

What features would it have?

Pet Care of a Corn Snake



Corn snakes originate in the dry scrublands and forests of North America. In the UK, pet corn snakes are more likely to be bred in captivity, rather than being a snake caught in the wild. They are mainly terrestrial snakes – above ground – but they also hide in rodent burrows or under debris. Captive corn snakes have very complex needs.

Environment

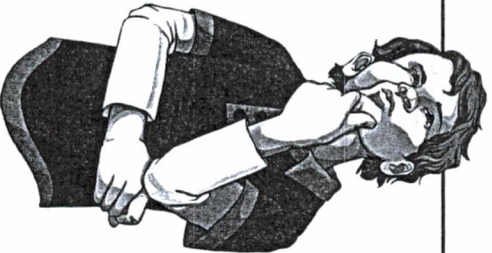
A corn snake's captive environment should replicate its wild environment. They must have an enclosure which is called a vivarium. This is large glass case, preferably a 4ft long so that an adult corn snake can stretch out. They usually grow to 150cm.

The floor covering is called substrate. This can be beech wood chips, or aspen, which the snake can burrow through, as if they were in the wild.

Snakes are ectothermic, which means they use the environment to warm up or cool down. The temperature of the vivarium must be closely monitored, and it is necessary for a thermostat to be installed. This will ensure the temperature remains constant. There must be a cool end and a warm end of the vivarium, with a heat lamp at the warm end.

Did you know?

- In the wild, corn snakes sometimes eat other reptiles and amphibians.
- Corn snakes can live for between 10 and 15 years!
- They regularly shed their skin by rubbing their bodies along objects.

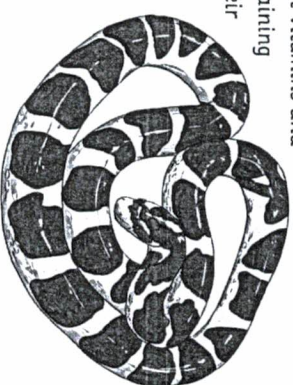


Pet Care of a Corn Snake

Diet

In the wild, corn snakes eat a wide range of animals like rodents and small birds. They are non-venomous and instead they constrict their prey. In captivity, corn snakes eat dead mice which are available from pet shops. They cannot get all the important vitamins and minerals they need so liquid drops containing the necessary nutrients are added to their drinking water.

The clean drinking water must be refreshed every day. Snakes will sometimes bathe in their drinking water so the dish needs to be shallow.



Behaviour

Corn snakes like to hide in small places, often in rodent burrows in the wild, so they need to have some places to do this in their vivarium. They also need to stay active so need enrichment activities. Make sure they have branches forming nooks and crannies, to climb around.

Diseases

- Snakes can suffer from mouth rot, which is an unpleasant infection of the mouth.
- They can develop external parasites, which lodge under the skin and ingest their blood!
- Abnormal droppings can be a sign of internal parasites, which live off the internal workings of the snake, and make it ill.

Corn snakes can get used to handling, but it must be done very carefully so that that they are not afraid. They may bite if scared. If they pull their head back with their neck forming an 'S' shape, they are feeling like they need to protect themselves. Never keep them out of their vivarium for longer than 10 minutes, otherwise their body temperature drops too low, and they can become ill.

Questions

1. How are pet corn snakes in the UK obtained?

2. In the sentence "A corn snake's captive environment should replicate its wild environment", what word or phrase could have been used instead of 'replicate'?

3. Explain why corn snakes need substrate in their vivarium.

4. Look at the paragraph in italics. What are the main points in this paragraph?

5. Describe how a corn snake kills its prey. Ensure to explain what some words mean.

6. Why do captive corn snakes need liquid drops in their water?

7. What do corn snakes like to do in the wild, and how can the vivarium be designed to help them do this in captivity?

Questions

8. Use a dictionary to identify what a parasite is.

9. Describe how a corn snake owner would know their pet is feeling defensive.

10. What sort of person would suit owning a corn snake? Refer to the text to justify your reasons.

BACK TO EARTH WITH A BUMPI

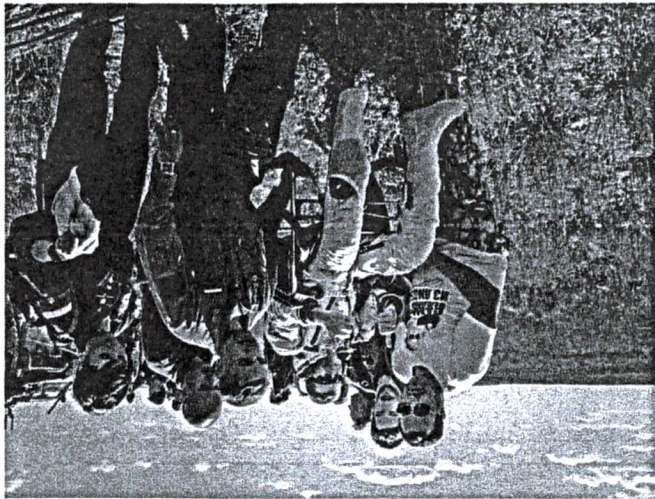
Reported by Amanda Kelper, Media Correspondent, London

Last week, British astronaut Tim Peake returned home from an incredible six month stay aboard the International Space Station (ISS), alongside his crewmates Yuri Malenchenko and Timothy Kopra. He is the first British astronaut to have lived on the ISS.

The men were launched into space on 15th December 2015 and in the months before take-off, they trained intensively for their trip. Training involved learning to speak Russian, spending 12 days under the sea and a winter survival expedition.

During their space mission, the astronauts conducted experiments, tested out new technology and inspired the next generation of space travellers. Peake told reporters that the highlight of his trip was a spacewalk where he had to make a repair on the space station. Whilst he was 400km away from his home, Tim also ran the equivalent of the London Marathon on his treadmill.

Having circled the planet nearly 3,000 times in 186 days, the crew returned home to Earth via a Soyuz capsule, which reached speeds of up to 28,000 kilometres per hour (25 times the speed of sound). The touchdown was bumpy due to high winds, however the astronauts landed safely near the town of Zhezkazgan in Kazakhstan. They all returned in good health. Having arrived back on solid ground, the astronauts were pulled out of the capsule and carried as their leg muscles were too weak to walk. Whilst sitting in their space suits, the men were checked over by medical staff. During these checks, Peake was asked how it felt to be home, 'The smells of Earth are so strong and it's wonderful to be back in the fresh air.'



Landing with a bump! Tim Peake lands safely in Kazakhstan.

Tim later flew from Kazakhstan to the headquarters of the European Space Agency in Cologne, Germany where he is recovering and adjusting to life back on Earth. Scientists are carrying out tests to see how his body has been affected by his time in space.

In a recent press conference, Peake commented on how he'd missed family and friends, and even the rain. Tim expressed how much he was now looking forward to spending some quality time with his family. When asked if he'd return to space in the future, he replied, '...in a heartbeat.'

His service to science has earned him an honour from the Queen. Peake was made a CMG, or companion of the order of St Michael and St George. In response, Tim said, 'I am only one privileged person in a complex team of technicians, scientists, engineers, educators, trainers and flight directors, all working in pursuit of one of the greatest scientific and technical challenges of our time – exploring our solar system for the benefit of people on Earth. This award is for them.'

Comprehension Questions

Answer questions in full sentences.

1. How long had Peake been living on the ISS?

2. Why do you think Peake needed to learn Russian before he went?

3. Write down **three** jobs Tim had to do on the mission.

4. What made the touchdown bumpy?

5. Why were the astronauts carried out of the capsule?

6. What did Peake notice once he'd left the capsule?

7. What was hard about being on the ISS for so long?

8. Why do you think Tim dedicated his special honour to the entire team?

9. Give two reasons why space travel is important.

10. Why has a picture and caption been added to the report?

My Shadow

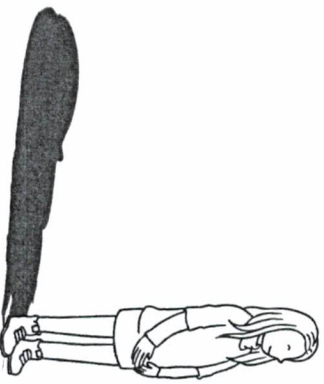
By Robert Louis Stevenson

I have a little shadow that goes in and out with me,
And what can be the use of him is more than I can see.
He is very, very like me from the heels up to the head;
And I see him jump before me, when I jump into my bed.

The funniest thing about him is the way he likes to grow-
Not at all like proper children, which is always very slow;
For he sometimes shoots up taller like an india-rubber ball,
And he sometimes gets so little that there's none of him at all.

He hasn't got a notion of how children ought to play,
And can only make a fool of me in every sort of way.
He stays so close beside me, he's a coward you can see;
I'd think shame to stick to nurse as that shadow sticks to me!

One morning, very early, before the sun was up,
I rose and found the shining dew on every buttercup;
But my lazy little shadow, like an arrant sleepy-head,
Had stayed at home behind me and was fast asleep in bed.



My Shadow By Robert Louis Stevenson

Answer in full sentences.

1. Who is 'he' in the poem?

2. What do we call the device we use to give human characteristics to something that isn't human? Can you find three examples of this in the poem?

3. How many rhyming couplets are there in the poem?

4. How does the narrator describe how children grow?

5. Why is the way the shadow grows 'not at all like proper children'?

6. What do you think the word 'notion' means on line 9?

7. Use the text to help explain what a coward is. How do you know?

My Shadow By Robert Louis Stevenson

8. Who does the narrator mean when using the word 'nursie'?

9. Does the language in the poem indicate that this is an old or modern poem? Give three examples to back up your answer.

10. In the final verse, which line gives the scientific reason as to why the narrator can't see their shadow when they go outside? Explain your choice.
